

Melbin 9555

## Lab 8 Postlab.

Q.1] List all the methods which could be used to solve the tower of Hanoi problem.

Ans]

- (i) Recursive Solution: It involves breaking into smaller problem.
- (ii) Iterative Solution: This method uses loops to solve the problem.
- (iii) Closed form expression: For calculating the minimum number of moves required, there is a mathematical formula:  $2^n - 1$ .
- (iv) Dynamic programming:
- (v) Non-Recursive, Non-iterative Algorithm.

Q.2] What is the best approach and why?

Ans] Recursive approach is the best approach.

- (i) Simplicity.
- (ii) Minimal Code.
- (iii) Direct Mapping to problem definition.

Q.3] What are the application of tower of Hanoi?

Ans]

- (i) Computer Science Education.
- (ii) Psychology.
- (iii) Mathematics.
- (iv) Computer Application.
- (v) Neuroscience.